# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 10/600,382 | 06/20/2003 | Brian J. Cragun | ROC920030127US1 | 8521 |

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| 46797     7590     10/05/2007 | | EXAMINER |
| IBM CORPORATION, INTELLECTUAL PROPERTY LAW | | PONIKIEWSKI, TOMASZ |
| DEPT 917, BLDG. 006-1 | | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 10/600,382 | CRAGUN ET AL. |
| | Examiner | Art Unit |
| | Tomasz Ponikiewski | 2165 |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>6</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on <u>19 July 2007</u>.

2a)☐ This action is **FINAL**.      2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1,3,6,8-10,12,13,15,17,19-22,25 and 28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) <u>1,3, 6, 8-10 15, 17, 20-22, 25 and 28</u> is/are rejected.

7)☐ Claim(s) <u>12,13 and 19</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)            Office Action Summary            Part of Paper No./Mail Date 20070925

## DETAILED ACTION

1.    The Amendment filed on July 19, 2007 has been received and entered.  Claims

4-5, 7, 11, 16, 18, 23-24 and 26-27 have been canceled.  Therefore, claims 1, 6, 8-10,

12-15, 17, 19-22, 25 and 28 are now pending.

### *Claim Rejections - 35 USC § 103*

2.    The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.    Claims 1, 3, 6, 10, 15, 17 and 28 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chatterjee (US 7,162,691 B1).


As per claim 1 Chatterjee is directed to a computer implemented method

comprising:

creating an annotation corresponding to a first data object identified by a first

plurality of identifying parameters that identify a location of the first data object

(Chatterjee, column 1, lines 33-36);

creating an index for the first data object, the index comprising one or more index

values, each generated based on one or more of the first plurality of identifying

parameters that identify a location of the first data object (Chatterjee, column 1, lines

38-40; column 6, lines 44-51); wherein creating the index for the first data object

comprises classifying the first data object based on the first plurality of identifying

parameters (Chatterjee, column 4, lines 52-53), selecting a first mapping, from a

plurality of mappings, based on the classification of the first data object (Chatterjee,

column 5, lines 30-35), and converting the first plurality of identifying parameters to one

or more of the index values, as specified in the first mapping (Chatterjee, column 3,

lines 48-50; column 6, lines 30-34);

creating a first record containing the annotation corresponding to the first data

object and the index for the first data object (Chatterjee, column 4, lines 6-18);

creating an annotation corresponding to a second data object identified by a

second plurality of identifying parameters, wherein the first and second sets of

identifying parameters comprise different numbers of parameters (Chatterjee, column 1,

lines 33-36; column 5, lines 30-38);

storing the first and second records in a storage medium (Chatterjee, column 1,

lines 61-64).

Chatterjee does not explicitly teach classifying the second data object based on

the second plurality of identifying parameters

Chatterjee does teach classifying an object based on plurality of identifying

parameters (Chatterjee, column 4, lines 52-53).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to determine that the classification could be done multiple times

because <u>Chatterjee</u> teaches that it could be done on different media types (<u>Chatterjee</u>, column 1, lines 42-46).

<u>Chatterjee</u> does not explicitly teach selecting a second mapping, from the plurality of mappings, based on the classification of the second data object.

<u>Chatterjee</u> does teach selecting a mapping, from the plurality of mappings, based on the classification of the data object (<u>Chatterjee</u>, column 5, lines 30-35)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine that the selection could be done multiple times because <u>Chatterjee</u> teaches that it could be done on different media types (<u>Chatterjee</u>, column 1, lines 42-46).

<u>Chatterjee</u> does not explicitly teach creating an index for the second data object by converting the second plurality of identifying parameters to one or more index values, as specified in the second mapping.

<u>Chatterjee</u> does teach creating an index for the data object by converting the plurality of identifying parameters to one or more index values, as specified in the mapping (<u>Chatterjee</u>, column , 1, lines 38-40; column 6, lines 44-51);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine that the creating index  for the data object by converting the plurality of identifying parameters to one or more index values, as specified in the mapping could be done multiple times because <u>Chatterjee</u> teaches different media types (<u>Chatterjee</u>, column 1, lines 42-46).

Chatterjee does not explicitly teach creating a second record containing the

annotation corresponding to the second data object and the index for the second data

object (Chatterjee, column 4, lines 6-18); and

Chatterjee does teach creating a record containing the annotation corresponding

to the data object and the index for the data object (Chatterjee, column 4, lines 6-18).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to creating a record containing the annotation corresponding to the

data object and the index for the data object could be done multiple times because

Chatterjee teaches different media types (Chatterjee, column 1, lines 42-46).


As per claim 3 Chatterjee is directed to where a number of the index values is

greater than a number of the first plurality of identifying parameters (Chatterjee, column

31, lines 32-41).


As per claim 6 Chatterjee is directed to wherein the first and second data objects

are of different types (Chatterjee, column 1, lines 45-47).


As per claim 10 Chatterjee is directed to a computer implemented method of

managing

annotations for a plurality of different type data objects, comprising:

receiving a set of parameters identifying an annotated data object, wherein the

identifying parameters identify locations of the annotated data object (Chatterjee,

column 1, lines 42-47);

selecting, based on the set of identifying parameters, a mapping from a plurality

of mappings, each containing a different set of mapping functions (Chatterjee, column 5,

lines 30-35); and

creating an index for the annotated data object by mapping the identifying

parameters to columns in an index table, as specified by the mapping functions of the

selected mapping, (Chatterjee, column 1, lines 38-40; column 6, lines 44-51).

Chatterjee does not explicitly teach wherein the mapping functions for each

mapping are designed to map a different set of identifying parameters to columns in the

index table.

Chatterjee does teach mappings depending on media type association

(Chatterjee, column 1, lines 42-46; column 3, lines 48-50)

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to mappings depending on media type association because

Chatterjee teaches different media types wherein different media-types could contain

different amount of parameters (Chatterjee, column 4, lines 56-62).

As per claim 15 Chatterjee is directed to a computer-readable storage medium

containing a program which, when executed by a processor, performs operations

comprising:

creating an annotation for a data object identified by a plurality of identifying

parameters, wherein the identifying parameters identify a location of the data object

being annotated (Chatterjee, column 1, lines 33-36);

creating an index for the data object, the index comprising one or more index

values, each generated based on one or more of the plurality of identifying parameters

(Chatterjee, column 1, lines 38-40; column 6, lines 44-51); wherein creating the index

for the data object comprises selecting, based on the plurality of identifying parameters,

a mapping from a plurality of mappings each containing a different set of mapping

functions and mapping the plurality of identifying parameters to columns of an index

table containing the index, according to the mapping functions of the selected mapping,

wherein the mapping functions of at least one of the mappings maps more than one

identifying parameter to a single column (Chatterjee, column 5, lines 30-37; column 6,

lines 30-35); and

creating an annotation record containing the annotation and the index for the

data object (Chatterjee, column 4, lines 6-18; column 6, lines 34-35)).


As per claim 17 Chatterjee does not expressly teach wherein the mapping

functions for each mapping are designed to map a different set of identifying parameters

to columns in the index table.

Chatterjee does implicitly teach wherein the mapping functions for each mapping

are designed to map a different set of identifying parameters to columns in the index

table (Chatterjee, column 5, lines 28-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to determine that the teaching of <u>Chatterjee</u> implicitly state that different media types could comprise different set of identifying parameters.

As per claim 28 <u>Chatterjee</u> is directed to a computer implemented method of managing annotations for a plurality of different type data objects, comprising:

receiving a set of parameters identifying an annotated data object, wherein the identifying parameters identify locations of the annotated data object (<u>Chatterjee</u>, column 1, lines 42-47);

selecting, based on the set of identifying parameters, a mapping from a plurality of mappings, each containing a different set of mapping functions, wherein at least one of the mappings comprises mapping functions for mapping parameters identifying annotated data objects associated with a database to the index table columns, and at least one of the mappings comprises mapping functions for mapping parameters identifying annotated data objects associated with a text document to the index table columns (<u>Chatterjee</u>, column 5, lines 30-35); and

creating an index for the annotated data object by mapping the identifying parameters to columns in an index table, as specified by the mapping functions of the selected mapping (<u>Chatterjee</u>, column  1, lines 38-40; column 6, lines 44-51).

4.      Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Chatterjee</u> (US 7,162,691 B1)  in view of Thompson (US 5,761,429).

As per claim 8 <u>Chatterjee</u> does not teach wherein the first object is a sub-object of the second object and the second set of identifying parameters is a subset of the first plurality of identifying parameters.

<u>Thompson</u> teaches wherein the first object is a sub-object of the second object and the second set of identifying parameters is a subset of the first plurality of identifying parameters (<u>Thompson</u>, column 1, lines 29-36).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the <u>Chatterjee</u> by teachings of <u>Thompson</u> to include wherein the first object is a sub-object of the second object and the second set of identifying parameters is a subset of the first plurality of identifying parameters because hierarchical structure is well-known and used in the art.

5.    Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over <u>Chatterjee</u> (US 7,162,691 B1) in view of <u>Toyama</u> (US 2004/0192343 A1).

As per claim 9 <u>Chatterjee</u> does not teach to wherein:

the first data object is contained in a text document, wherein the first plurality of identifying parameters includes at least one or more parameters indicating a location and name of the text document;

Toyama does teach the first data object is contained in a text document, wherein the first plurality of identifying parameters includes at least one or more parameters indicating a location and name of the text document (Toyama, paragraph 0042);

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Chatterjee by teachings of Toyama to include the first data object is contained in a text document, wherein the first plurality of identifying parameters includes at least one or more parameters indicating a location and name of the text document because parameters that indicate location and name of the text document are helpful in finding and using the document.

Chatterjee does not teach the second data object is contained in a database table, wherein the second plurality of identifying parameters includes at least one or more parameters indicating a location and name of the database table.

Toyama does teach the second data object is contained in a database table, wherein the second plurality of identifying parameters includes at least one or more parameters indicating a location and name of the database table (Toyama, paragraph 0042).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Chatterjee by teachings of Toyama to include the first data object is contained in a text document, wherein the first plurality of identifying parameters includes at least one or more parameters indicating a location and name of the database table because parameters that indicate location and name of the database table are helpful in finding and using the table.

6.     Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Chatterjee (US 7,162,691 B1) in view of Nakamura et al. (US 2003/0074375 A1).


       As per claim 14 Chatterjee does not teach at least one of the mappings

comprises mapping functions for mapping parameters identifying annotated data

objects associated with a database to the index table columns.

       Nakamura et al. does teach at least one of the mappings comprises mapping

functions for mapping parameters identifying data objects associated with a database to

the index table columns (Nakamura et al., page 2, paragraph 0018; page 4, paragraph

0056, lines 19-22);

       It would have been obvious to one of ordinary skill in the at the time the invention

was made to modify the teachings of Chatterjee with those of Nakamura et al. to include

the mapping of parameters identifying objects associated with database to the index

table columns because knowing which columns to access depends on how efficient the

information stored.  This approach makes the use of index table easier to use.

       Chatterjee does not teach at least one of the mappings comprises mapping

functions for mapping parameters identifying annotated data objects associated with a

text document to the index table columns.

       Nakamura et al. does teach and at least one of the mappings comprises mapping

functions for mapping parameters identifying annotated data objects associated with a

text document to the index table columns (Nakamura et al., page 2, paragraph 0018

page 4, paragraph 0056, lines 19-22).

It would have been obvious to one of ordinary skill in the at the time the invention

was made to modify the teachings of Chatterjee with those of Nakamura et al. to include

the mapping of parameters identifying objects associated with text document to the

index table columns because knowing which columns to access depends on how

efficient the information was stored.  This approach makes the use of index table easier

to use.

7.      Claims 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chatterjee (US 7,162,691 B1) in view of Nolan et al. (US 5,253,362).

As per claim 20 Chatterjee is directed to a system to manage annotations for

different type data objects, comprising:

a processor (Chatterjee, figure  1, # 27);

a storage medium containing an annotation database to store annotation records

containing annotations for the different type data objects (Chatterjee, figure 1, # 25);

an index table to store indexes for the different type data objects, the index table

having a plurality of columns, each corresponding to a different value of the indexes;

a plurality of mappings, each containing functions to map a set of identifying

parameters for a different type of data object to one or more columns in the index table

(Chatterjee, column 5,  lines36-38); and

an annotation component executable by the processor and configured to receive

sets of parameters identifying data objects and, for each set of identifying parameters

received, select one of the mappings based on the corresponding set of identifying

parameters, and create an index for the first data object by mapping the first set of

identifying parameters to columns in the index table, as specified by the mapping

functions of the selected mapping (Chatterjee, column 1, lines 38-40; column 6, lines

44-51), and wherein the annotation component is further configured to receive a request

for an indication of annotations associated with a specified data object identified by a

set of parameters, select one of the mappings based on the set of parameters

identifying the specified data object (Chatterjee, column 5, lines 30-35), create an index

for the specified data object by mapping the set of parameters identifying the specified

data object to columns in the index table as specified by the mapping functions of the

selected mapping (Chatterjee, column 1, lines 38-40; column 6, lines 44-51),

Chatterjee does not teach retrieve annotations, if any, for the specified data

object, based on the index for the specified data object, and return the annotations,

wherein retrieving annotations comprises retrieving annotations for sub-objects of the

specified data object.

Nolan et al. teaches retrieve annotations, if any, for the specified data object,

based on the index for the specified data object, and return the annotations, wherein

retrieving annotations comprises retrieving annotations for sub-objects of the specified

data object (Nolan et al, column 7, lines 7-8).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the Chatterjee by teachings of Nolan et al. to include retrieve annotations, if any, for the specified data object, based on the index for the specified data object, and return the annotations, wherein retrieving annotations comprises retrieving annotations for sub-objects of the specified data object because retrieving annotations is useful and well-known in the art.


As per claim 25 Chatterjee is directed to wherein retrieving annotations for the specified object comprises:

determining if any indexes in the index table match the index created for the specified data object; (Nolan et al., column 7, lines 36-39, wherein objects are retrieved only when they match the index) and

if so, retrieving one or more annotations for the specified data object from the annotation database (Nolan et al., column 7, lines 36-39).


8.      Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chatterjee (US 7,162,691 B1) in view of Nolan et al. (US 5,253,362) and further in view of Nakamura et al. (US 2003/0074375 A1).


As per claim 21 Chatterjee as modified still does not teach wherein at least one of the mappings comprises mapping functions for mapping parameters identifying data objects associated with a database to the index table columns.

Nakamura et al. teaches wherein at least one of the mappings comprises

mapping functions for mapping parameters identifying data objects associated with a

database to the index table columns. (Nakamura et al., page 2, paragraph 0018 page 4,

paragraph 0056, lines 19-22).

It would have been obvious to one of ordinary skill in the at the time the invention

was made to further modify the teachings of Chatterjee as modified with those of

Nakamura et al. to include wherein at least one of the mappings comprises mapping

functions for mapping parameters identifying data objects associated with a database to

the index table columns because knowing which columns to access depends on how

efficient the information was stored.  This approach makes the use of index table easier

to use.


As per claim 22 Chatterjee as modified still does not teach to wherein at least

one of the mappings comprises mapping functions for mapping parameters identifying

data objects associated with a text document to the index table columns.

Nakamura et al. teaches wherein at least one of the mappings comprises

mapping functions for mapping parameters identifying data objects associated with a

text document to the index table columns (Nakamura et al., page 2, paragraph 0018

page 4, paragraph 0056, lines 19-22).

It would have been obvious to one of ordinary skill in the at the time the invention

was made to further modify the teachings of Chatterjee as modified with those of

Nakamura et al. to include wherein at least one of the mappings comprises mapping

functions for mapping parameters identifying data objects associated with a text document to the index table columns because knowing which columns to access depends on how efficient the information was stored. This approach makes the use of index table easier to use.

## Allowable Subject Matter

9.      Claims 12-13 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

## Conclusion

10.     The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

    Srivastava et al. teaches managing metadata.

    Frazier et al. teaches accessing data from database.

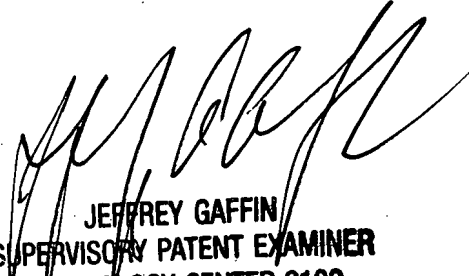    Fitzsimons et al. teaches transforming data.

11.     Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomasz Ponikiewski whose telephone number is (571) 272-1721. The examiner can normally be reached on 9:00-5:30.

    If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the
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Tomasz Ponikiewski
October 1, 2007

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